


TC-EX5

SERVICE MANUAL

AEP Model
UK Model
E Model
Australian Model
Tourist Model



TC-EX5 is cassette deck section in
MHC-EX5.

Dolby noise reduction manufactured under license from
Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of
Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism		NEW
Tape Transport Mechanism Type	DECK A	TCM-190RA12CL
	DECK B	TCM-190RB52C

SPECIFICATIONS

Recording system
4-track 2-channel stereo

Frequency response
(DOLBY NR OFF)
40 – 13,000 Hz (± 3 dB),
using Sony TYPE I cassette
40 – 14,000 Hz (± 3 dB),
using Sony TYPE II cassette
40 – 15,000 Hz (± 3 dB),
using Sony TYPE IV cassette

Wow and flutter
0.1% WRMS \pm 0.3% (DIN)

Dimensions
Approx. 280 x 125 x 285 mm (w/h/d)
(11 1/8 x 5 x 11 1/4 inches)

Mass
Approx. 2.9 kg (6 lb 7 oz)



Design and specifications are subject to change without notice.

STEREO CASSETTE DECK
SONY[®]

TABLE OF CONTENTS

Section	Title	Page
1.	GENERAL.....	2
2.	ADJUSTMENTS	
2-1.	Mechanical Adjustments.....	3
2-2.	Electrical Adjustments	3
3.	EXPLANATION OF IC TERMINALS	7
4.	DIAGRAMS	
4-1.	Block Diagram	9
4-2.	Printed Wiring Boards	13
4-3.	Schematic Diagram	17
5.	EXPLODED VIEWS	
5-1.	Chassis Section	23
5-2.	Front Panel Section	24
5-3.	Mechanism Section-1.....	25
5-4.	Mechanism Section-2.....	26
6.	ELECTRICAL PARTS LIST	27

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SERVICING NOTE

• POWER SUPPLIED WHILE SERVICING

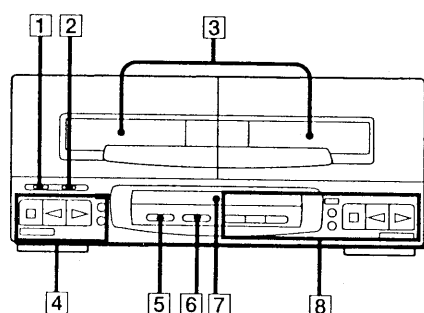
This unit does not work independently because of not having the power supply.

It must be unite together with the other units when repaired.

SECTION 1 GENERAL

LOCATION OF CONTROLS

This section is extracted from instruction manual.



- 1 DOLBY NR selector (15)
- 2 DIRECTION MODE selector (14)
- 3 Cassette compartments (14)
- 4 Tape operating buttons (for deck A)
 - ▷ (front side play) (14)
 - ◁ (reverse side play) (14)
 - (stop) (14)
 - ▶▶ (fast rightward and AMS**) (14)
 - ◀◀ (fast leftward and AMS**) (14)
 - ▲ EJECT button (14)
- 5 CD SYNCHRO button* (15)
- 6 DUBBING MODE button* (19)
- 7 Display window

- 8 Tape operating buttons (for deck B)
 - ▷ (front side play) (14)
 - ◁ (reverse side play) (14)
 - (stop) (14)
 - ▶▶ (fast rightward and AMS**) (14)
 - ◀◀ (fast leftward and AMS**) (14)
 - || PAUSE (14)
 - REC MUTE button (16)
 - REC (recording) (16)
 - ▲ EJECT button (14)
- **AMS: Automatic Music Sensor (14)

SECTION 2 ADJUSTMENTS

2-1. MECHANICAL ADJUSTMENTS

PRECAUTION

- Clean the following parts with a denatured alcohol-moistened swab:

record/playback/erase head	pinch roller
rubber belts	capstan
idlers	
- Demagnetize the record/playback head with a head demagnetizer. (Head demagnetizer do not approach for the erase head.)
- Do not use a magnetized screwdriver for the adjustment.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	30 to 60g • cm (0.42 to 0.83oz • inch)
Forward back tension	CQ-102C	1 to 5g • cm (0.014 to 0.069 oz • inch)
Reverse	CQ-102RC	30 to 60g • cm (0.42 to 0.83 oz • inch)
Reverse back tension	CQ-102RC	1 to 5g • cm (0.014 to 0.069 oz • inch)
FF/REW	CQ-201B	65 to 90g • cm (0.91 to 1.25 oz • inch)

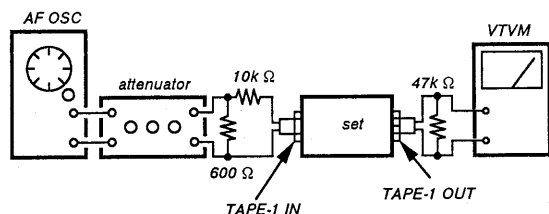
2-2. ELECTRICAL ADJUSTMENTS

PRECAUTION

- The adjustment should be performed in the publication. (Be sure to make playback adjustment at first.)
- The adjustments and measurement should be performed for both L-CH and R-CH.
 - Switch position

DOLBY NR switch	: OFF
DIRECTION MODE switch	: ⇄
 - Standard record position :
Deliver the standard input signal level to input jack as follows.

— Record Mode —



Standard Input Level

Input terminal	TAPE-1 (LINE IN)
source impedance	10k Ω
input signal level	0.5V (- 3.8dB)

Standard Output Level

Output terminal	TAPE-1 (LINE OUT)
load impedance	47k Ω
output signal level	0.5V (- 3.8dB)

Test Tape

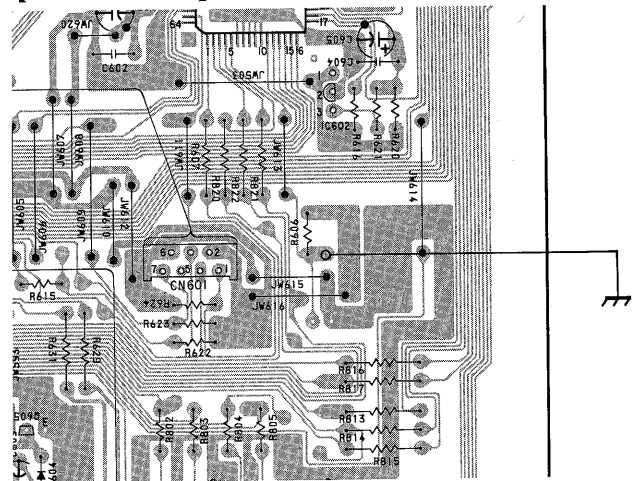
Tape	Contents	Use
P-4-A100	10kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

$$0\text{dB} = 0.775\text{V}$$

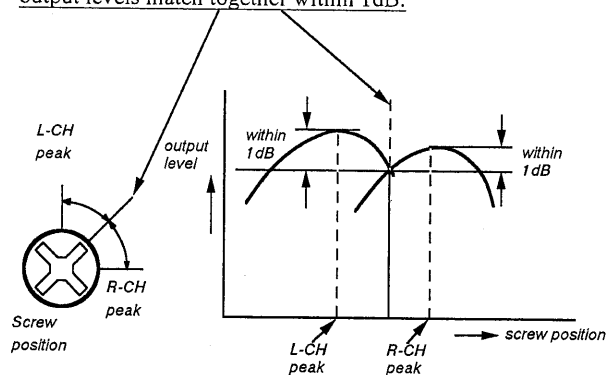
Test Mode

- If the power supply is TA-EX5. (When AU BUS is alive)
 - Short-circuit following portion (IC104 ⑤ pin) on the main board.
 - Turn the POWER on.
 - Open the short-circuit to release test mode.

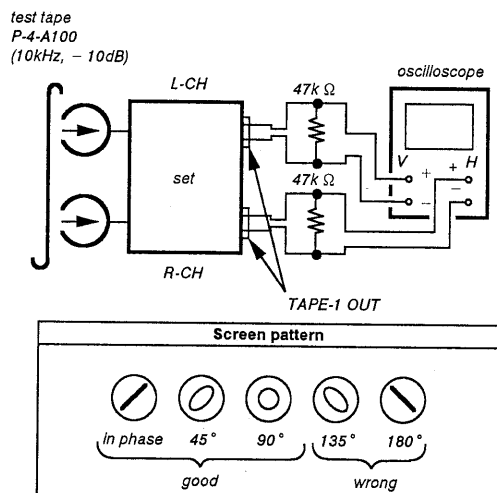
[TC MAIN BOARD]



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.

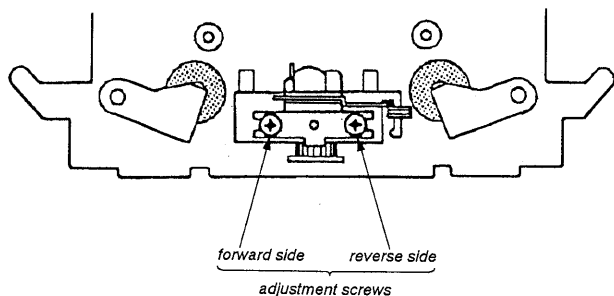


3. Playback Mode



4. Change the reverse playback mode and repeat the steps 1 to 3.
5. After the adjustment, lock the adjustment screws with suitable locking compound.

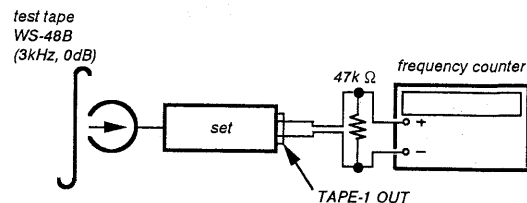
Adjustment Location : – record/playback head –



Tape Speed Adjustment

Procedure :

– Forward Playback Mode –



(high speed adjustment)

1. Connect ⑤ pin of IC104 to ground with lead wire.
2. Set to FWD playback mode.
3. Keep on pressing the DUBBING MODE button at HIGH position.
4. Adjust RV72 so that the frequency counter reading becomes $6,000 \pm 30\text{Hz}$.

(normal speed adjustment)

1. Set to FWD playback mode.
2. Set the DUBBING MODE button to NORMAL.
3. Adjust RV71 so that the frequency counter reading becomes $3,000 \pm 15\text{Hz}$.

Frequency difference between the beginning and the end of the tape should be within 3%.

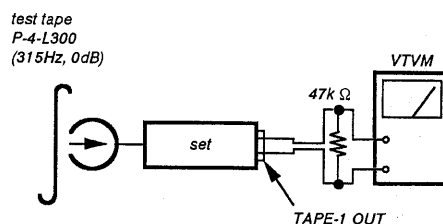
Frequency difference between the deck A and deck B the beginning of the tape should be within 1.5%.

Adjustment Location : AUDIO board. (See page 6)

Playback Level Adjustment

Procedure :

– Forward Playback Mode –



Adjust RV11(L-CH) and RV21(R-CH) so the VTVM reading becomes the adjustment limits below.

Adjustment Value :

TAPE-1 OUT level : – $7.7 \pm 0.5\text{dB}$ (0.301 to 0.338V)

Level difference between channels : within 0.5dB

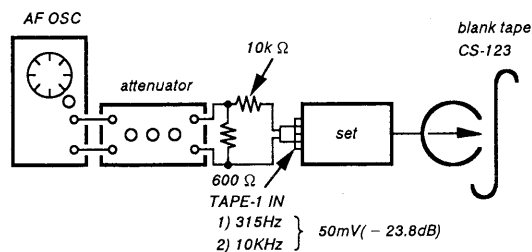
Confirm the TAPE-1 OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location : AUDIO board. (See page 6)

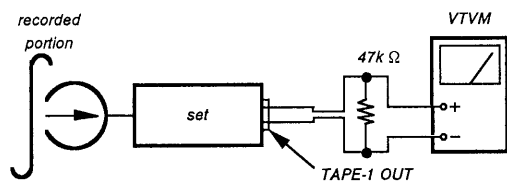
Record Bias Adjustment DECK-B

Procedure :

1. Record Mode



2. Playback Mode



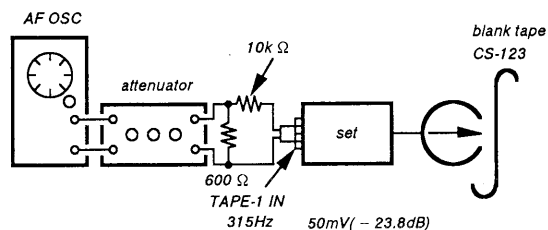
Confirm that the 10kHz playback output is $0 \pm 0.5\text{dB}$ relative to the 315Hz output. If necessary, adjust RV12 (L-CH), RV22 (R-CH) and repeat the steps given above.

Adjustment Location : AUDIO board. (See page 6)

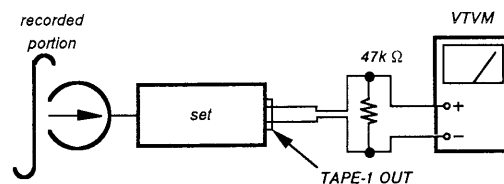
Record Level Adjustment DECK-B

Procedure :

1. Record Mode



2. Playback Mode



Confirm playback the tape recorded become adjustment level as follows.

If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat the steps 1 and 2.

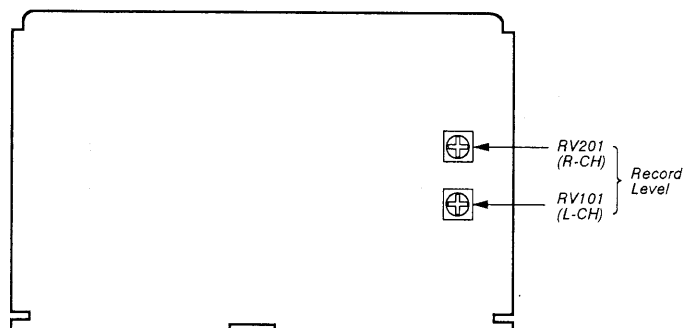
Adjustment Value :

TAPE-1 OUT level : $- 23.8 \pm 0.5\text{dB}$ (47.2 to 53mV)

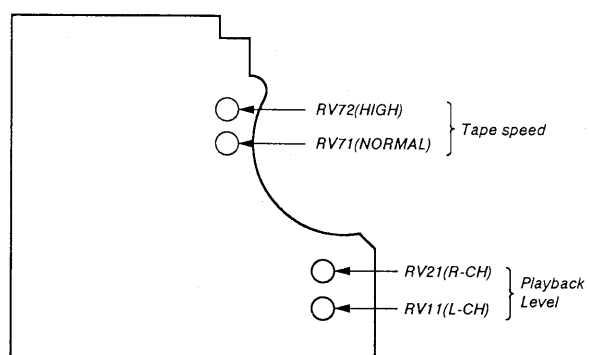
Adjustment Location : TC MAIN board. (See page 6)

— Adjustment Parts Location Diagrams —

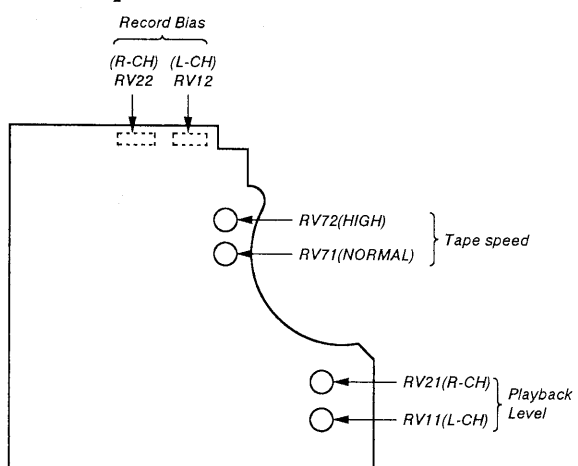
[TC MAIN BOARD]



DECK A :
[AUDIO BOARD]



DECK B :
[AUDIO BOARD]



SECTION 3 EXPLANATION OF IC TERMINALS

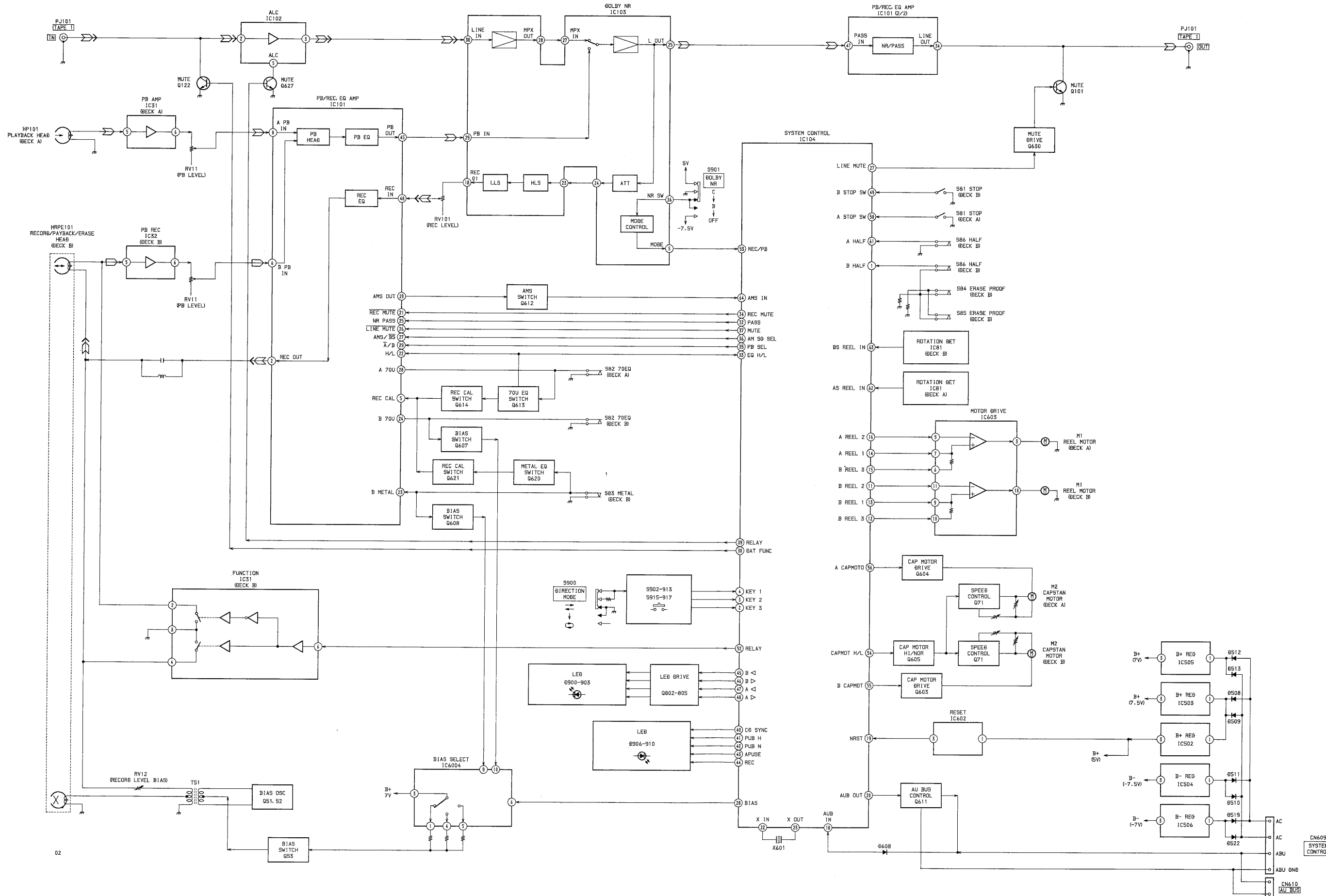
IC104 M38123M4-118FP TC CONTROL (TC MAIN BOARD)

Pin No.	Pin name	I/O	Description
1	B HALF	I	B Half detection input. "L" : Presence "H" : Nothing
2	KEY3	I	Key input. (A/D converter analog input)
3	KEY2		
4	KEY1		
5	TEST	I	Electrical adjustment test mode setting. "L" : Test mode
6	DISP RST	O	GND.
7	DISP SYNC		
8	DISP CLK		
9	DISP OUT		
10	DISP IN		
11	B REEL2	O	Deck B reel motor control output.
12	B REEL3		
13	B REEL1		
14	A REEL1	O	Deck A reel motor control output.
15	A REEL3		
16	A REEL2		
17	PWR IN	I	+5V power supply input.
18	AUB IN	I	Audio bus input.
19	NRST	I	Microcomputer reset input.
20	AUB OUT	O	Audio bus output.
21	XC OUT	O	Not used. (GND)
22	X IN	I	Osillator connection pins. (4MHz)
23	X OUT	O	
24	Vss	—	GND.
25	VER	—	GND.
26	PWR OUT	O	Not used. (Open)
27	LINE MUTE	O	Line mute ON/OFF. "L" : ON
28	BIAS	O	Bias oscillation control output. "L" : ON
29	NC	—	GND.
30	DAT FUNC	O	DAT mute output.
31	CD FUNC	O	CD mute output.
32	PASS	O	PASS amplifier switch output to dolby.
33	EQ H/L	O	REC equalizer switching output. "L" : High speed "H" : Normal speed
34	REC MUTE	O	REC mute output.
35	PB SEL	O	Play mode deck A/B select output. "L" : DECK A "H" : DECK B
36	AMS G SEL	O	AMS/BS mode select output. "H" : AMS mode "L" : BS mode
37	1599 MUTE	O	Mute output to IC101 (CXA1599Q). "H" : ON "L" : OFF
38	NC	—	Not used. (GND)
39	NR RELAY	O	ALC control output.
40	CD SYNC	O	CD synchro dubbing LED output "H" : ON "L" : OFF

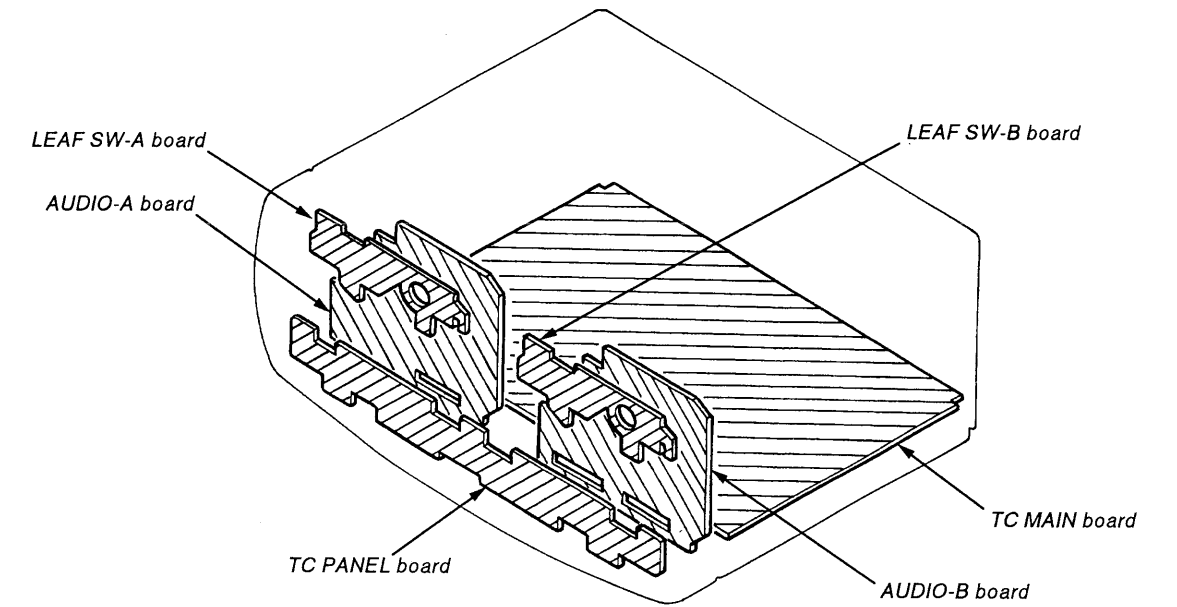
Pin No.	Pin name	I/O	Description
41	DUB H	O	High speed dubbing LED output. "H" : ON "L" : OFF
42	DUB N	O	Normal speed dubbing LED output. "H" : ON "L" : OFF
43	PAUSE	O	PAUSE LED output. "H" : ON "L" : OFF
44	REC	O	REC LED output. "H" : ON "L" : OFF
45	B ◁	O	Deck B REV LED output. "H" : ON "L" : OFF
46	B ▷	O	Deck B FWD LED output. "H" : ON "L" : OFF
47	A ◁	O	Deck A REV LED output. "H" : ON "L" : OFF
48	A ▷	O	Deck A FWD LED output. "H" : ON "L" : OFF
49	B STOP SW	I	Deck B stop detect input. "H" : STOP
50	A STOP SW	I	Deck A stop detect input. "H" : STOP
51	+7.5V DET	I	+7.5V power supply detect input.
52	RELAY	O	Control output to REC/PB select output. "H" : REC "L" : PLAY
53	REC/PB	O	Dolby IC (IC103) REC/PB select output. "H" : REC "L" : PLAY
54	CAP. MOT H/L	O	Capstan motor HIGH/LOW select output. "H" : HIGH "L" : LOW
55	B CAP. MOTOR	O	Deck B capstan motor control output. "H" : ON "L" : OFF
56	A CAP. MOTOR	O	Deck A capstan motor control output. "H" : ON "L" : OFF
57	V _{DD}	—	+5V power supply.
58	V _{EE}	—	GND.
59	A _{VSS}	—	GND.
60	VREF	I	A/D converter reference power supply +5V.
61	A HALF	I	Deck A half detect input.
62	BS. REEL IN	I	Deck B reel table signal input.
63	AS. REEL IN	I	Deck A reel table signal input.
64	AMS IN	I	AMS input. "L" : No song "H" : Song

SECTION 4 DIAGRAMS

4-1. BLOCK DIAGRAM

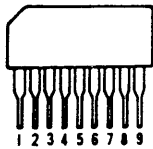


● CIRCUIT BOARD LOCATION

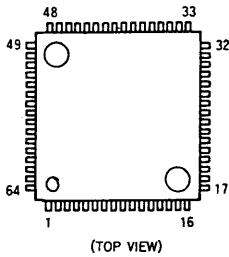


● SEMICONDUCTOR LEAD LAYOUTS

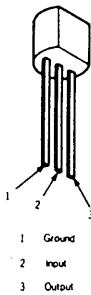
BA3308



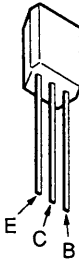
M38123M4-118FP



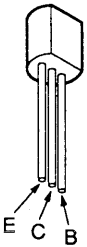
PST572D



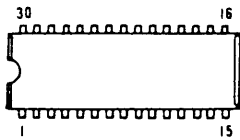
DTA114ES
DTA144ES
DTC114ES
DTC144ES



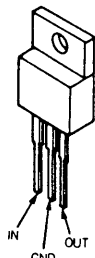
2SD1387
2SD1616A-K



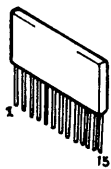
CXA1331S



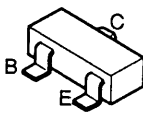
M5F7805S
M5F7807
M5F7907L
TA7805S



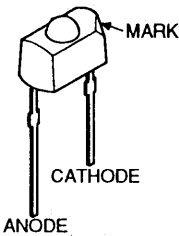
TA8242AK



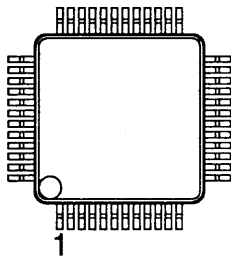
2SA1162-G



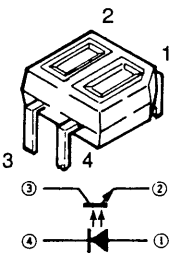
SEL5221S-TP15
SEL5421E-TH8F
SEL5921A-TH15



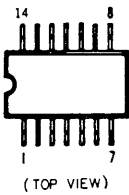
CXA1599Q



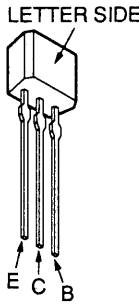
NJL5165K-B (H1)



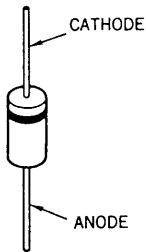
μPC1330AGR



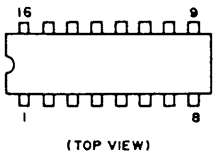
2SA1175-HFE
2SC3623A-K



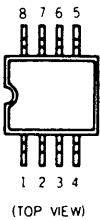
UZ-2.0BSB
1N4148M
10E2



MC14052BCP



μPC4570G2



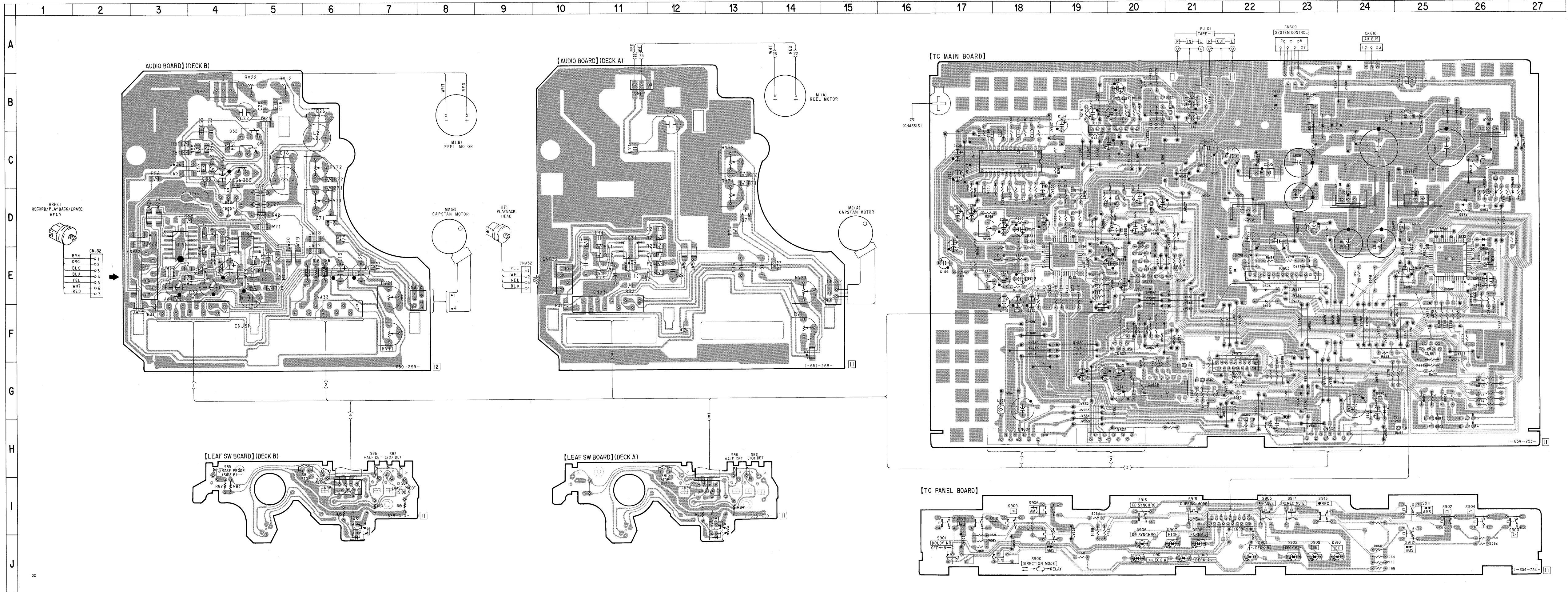
• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D508	B - 26	IC102	C - 20
D509	B - 25	IC103	C - 18
D510	B - 25	IC104	E - 25
D511	B - 25	IC502	C - 26
D512	B - 24	IC503	D - 25
D513	B - 23	IC504	D - 24
D519	B - 23	IC505	C - 22
D522	B - 23	IC506	D - 22
D523	C - 25	IC602	E - 26
D524	D - 24	IC603	E - 22
D525	B - 22	IC6004	G - 20
D526	B - 22		
D601	D - 26	Q51	C - 5
D602	E - 26	Q52	C - 5
D603	G - 24	Q53	C - 4
D604	G - 24	Q71 (A)	D - 13
D605	E - 22	Q71 (B)	D - 6
D606	E - 22		
D607	D - 20	Q101	D - 19
D608	D - 27	Q122	B - 21
		Q201	D - 19
		Q222	B - 20
D609	D - 26	Q603	H - 22
D610	F - 22		
D611	D - 26	Q604	H - 24
D620	E - 20	Q605	G - 24
D900	J - 21	Q607	G - 21
D901	J - 20	Q608	G - 21
D902	J - 23	Q609	G - 22
D903	J - 22		
D906	J - 20	Q611	C - 26
D907	J - 21	Q612	D - 20
		Q613	E - 20
D808	J - 21	Q614	E - 20
D909	J - 23	Q620	E - 20
D910	J - 23		
		Q821	E - 20
		Q827	B - 20
IC31 (A)	E - 11	Q830	D - 20
IC31 (B)	D - 3	Q802	H - 25
IC32	D - 4	Q803	H - 25
IC81 (A)	I - 13		
IC81 (B)	I - 5	Q804	H - 26
IC101	E - 19	Q805	H - 26


Note:

- : parts extracted from the component side.
- : Pattern on the side which is seen.

4-2. PRINTED WIRING BOARDS • Refer to page 12 for Semiconductor Lead Layouts.



Timing diagram for IC104. The waveform is a periodic signal with a period of 260nsec and a peak-to-peak voltage of 5.5Vp-p.

- All capacitors are in μF unless otherwise noted. pF : μM F 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- Δ : internal component.
-  : nonflammable resistor.

- **B+** : B+ Line
- **B-** : B- Line
- : adjustment for repair.

- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.

- Signal path.
 - : PB (DECK A)
 - : PB (DECK B)
 - : REC (DECK B)

[illegible][illegible]

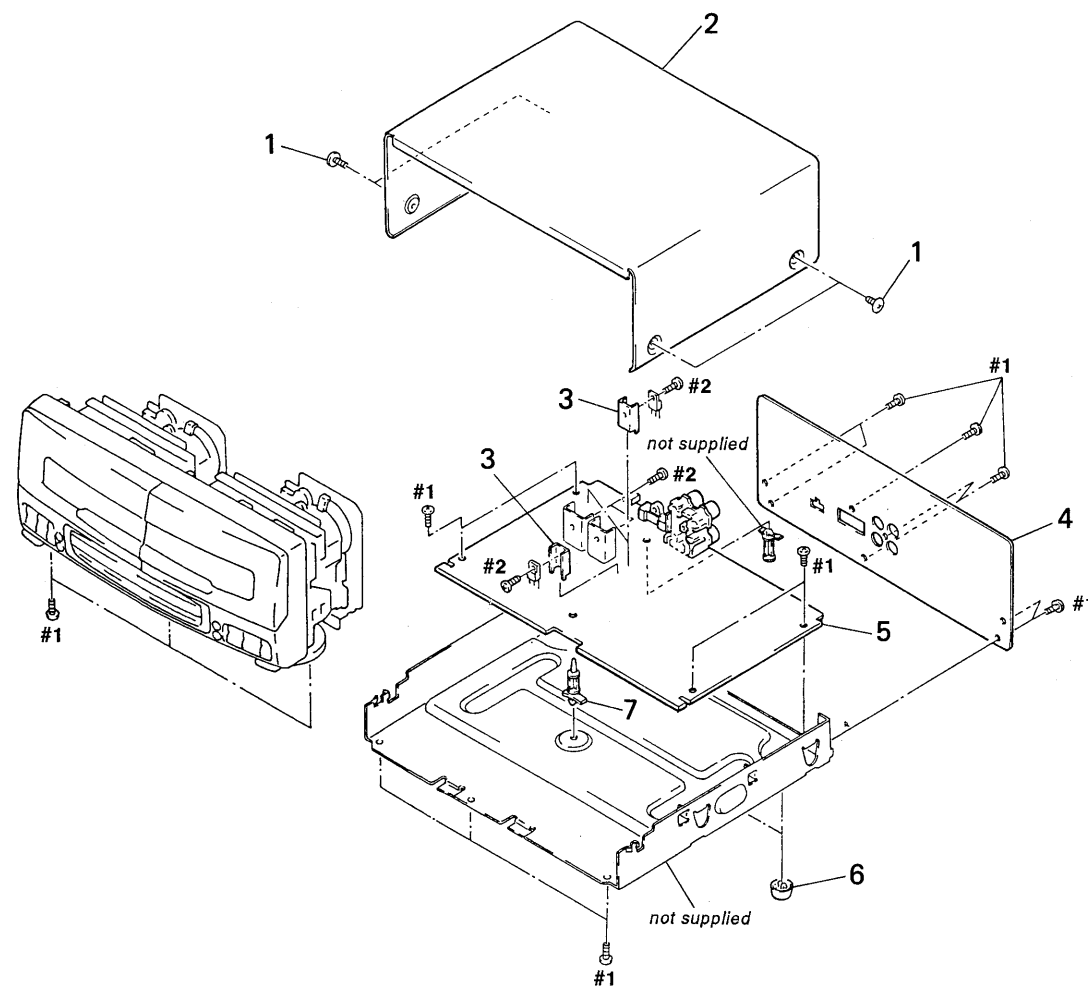
SECTION 5 EXPLODED VIEWS

NOTE :

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

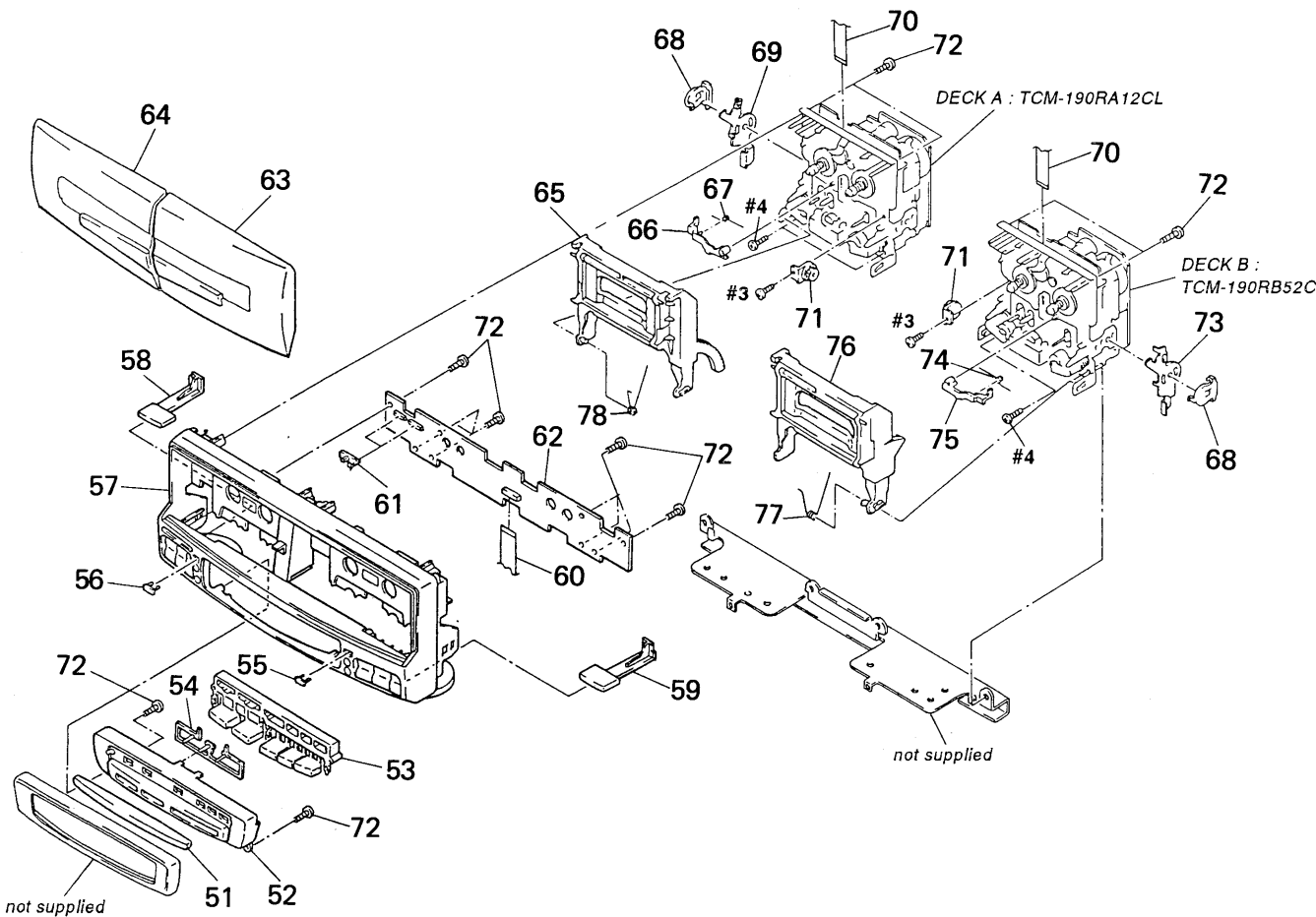
5-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	3-363-099-21	SCREW (CASE 3 TP2)	
2	3-919-558-01	CASE	
* 3	3-309-144-21	HEAT SINK	
* 4	3-919-578-01	PANEL, BACK	

Ref. No.	Part No.	Description	Remark
* 5	A-2007-301-A	TC MAIN BOARD, COMPLETE	
6	4-965-822-01	FOOT	
* 7	3-349-025-41	HOLDER, PC BOARD	

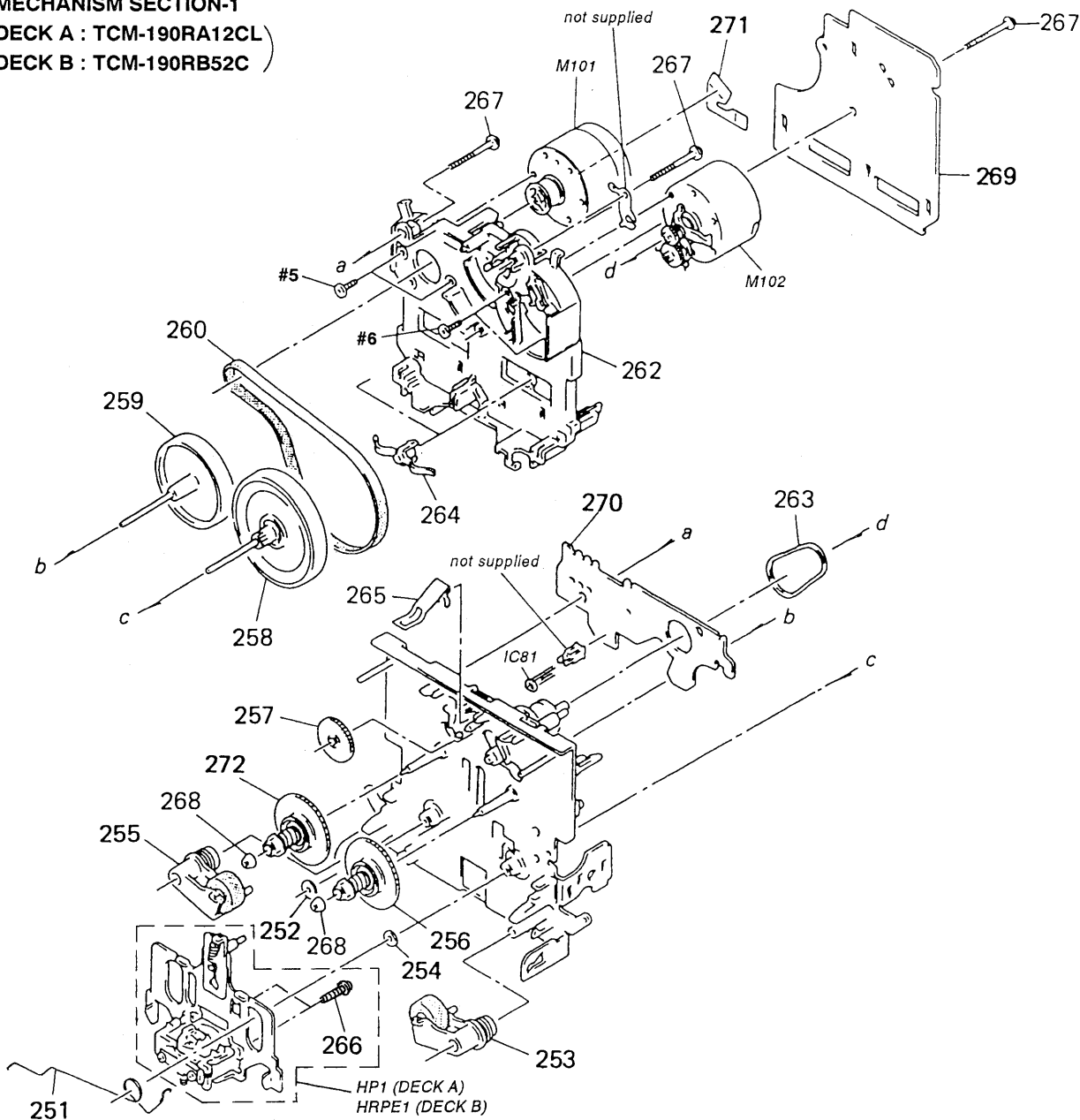
5-2. FRONT PANEL SECTION



Ref.No.	Part No.	Description	Remark
51	3-919-567-01	WINDOW (DISPLAY)	
52	3-919-571-01	BASE, WINDOW	
53	3-919-566-01	BUTTON (REC)	
54	3-919-577-01	INDICATOR (REC)	
55	3-919-573-01	COVER (AZIMUTH B)	
56	3-919-572-01	COVER (AZIMUTH A)	
57	X-3369-489-1	PANEL ASSY, FRONT	
58	3-919-574-01	SLIDER (L)	
59	3-919-575-01	SLIDER (R)	
60	1-769-390-11	WIRE (FLAT TYPE) (17 CORE)	
61	3-919-576-01	KNOB (SLIDE)	
* 62	A-2007-302-A	TC PANEL BOARD, COMPLETE	
63	X-3369-491-1	LID (B) ASSY, CASSETTE	
64	X-3369-490-1	LID (A) ASSY, CASSETTE	

Ref.No.	Part No.	Description	Remark
65	X-3369-493-1	HOLDER (L) ASSY, CASSETTE	
66	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
67	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
68	3-354-957-01	JOINT (LOCK LEVER)	
* 69	3-354-953-01	LEVER (LOCK LEVER L)	
70	1-765-384-11	WIRE (FLAT TYPE) (7 CORE)	
71	3-354-963-01	DAMPER	
72	4-951-620-01	SCREW (2.6×8), +BVTP	
* 73	3-354-954-01	LEVER (LOCK LEVER R)	
74	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
75	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
76	X-3369-494-1	HOLDER (R) ASSY, CASSETTE	
77	4-959-231-01	SPRING (L), TORSION	
78	4-959-232-01	SPRING (R), TORSION	

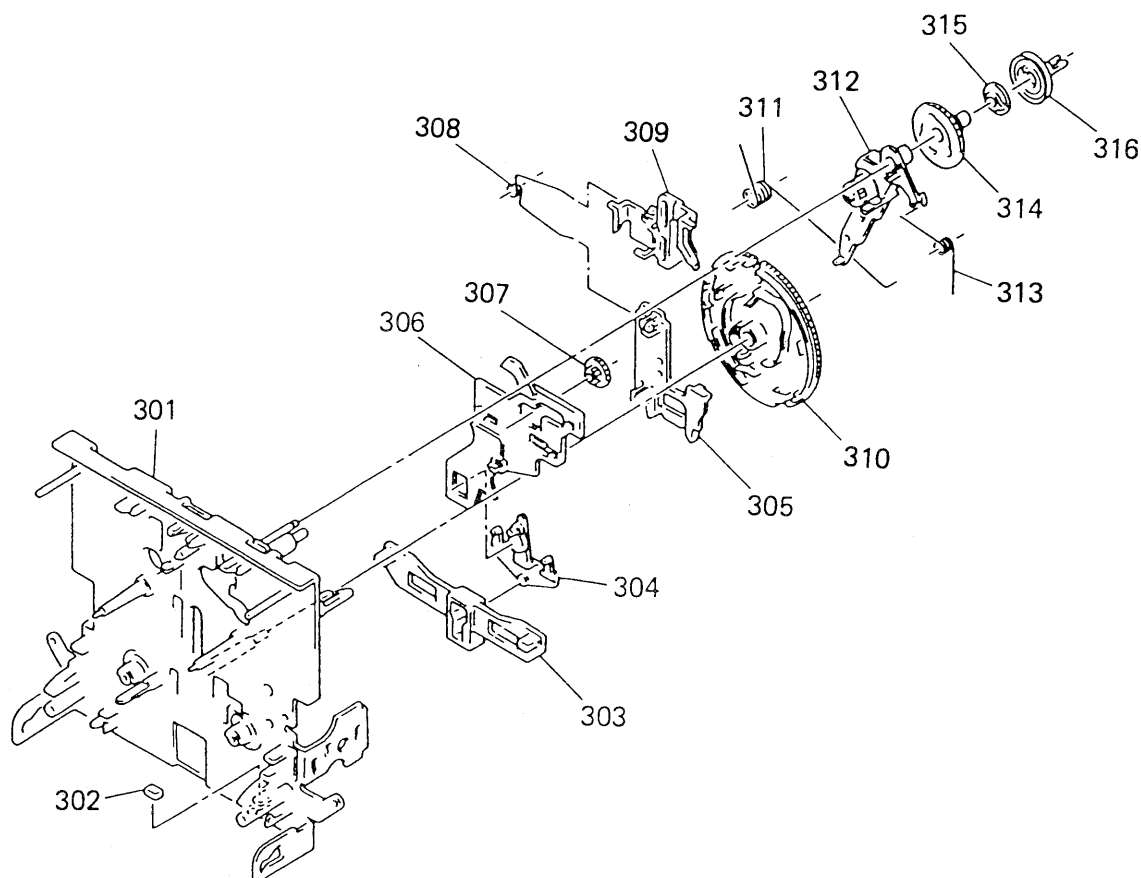
5-3. MECHANISM SECTION-1
 (DECK A : TCM-190RA12CL)
 (DECK B : TCM-190RB52C)



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
251	3-907-362-01	SPRING, TORSION		265	3-359-430-01	SPRING(CASSETTE RETAINER), LEAF	
252	3-356-714-01	WASHER		266	3-388-848-01	SCREW (P2×6) (B TIGHT)	
253	X-3366-047-1	LEVER (PINCH F) ASSY		267	3-359-414-01	SCREW (+PTPWH 2×23)	
254	3-356-713-01	WASHER		268	3-362-308-01	CAP (REEL)	
255	X-3366-048-1	LEVER (PINCH R) ASSY		* 269	A-2007-133-A	AUDIO BOARD, COMPLETE (DECK B)	
256	X-3366-971-1	TABLE ASSY (B), REEL (DECK A)		* 269	A-2007-266-A	AUDIO BOARD, COMPLETE (DECK A)	
256	X-3369-508-1	TABLE (C) ASSY, REEL (DECK B)		* 270	1-638-020-11	LEAF SW BOARD (DECK A) (DECK B)	
257	3-359-424-01	GEAR (REV GEAR)		271	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
258	X-3367-629-1	FLYWHEEL (FWD) ASSY		272	X-3366-970-1	TABLE ASSY, REEL	
259	X-3359-410-1	FLYWHEEL (REV) ASSY (DECK A)		HP1	A-2003-757-A	BASE ASSY, HEAD (PB) (DECK A)	
259	X-3367-630-1	FLYWHEEL (REV) ASSY (DECK B)		HRPE1	A-2003-930-A	BASE ASSY, HEAD (PB/REC/ERASE) (DECK B)	
260	3-359-417-01	BELT (FLAT), CAPSTAN		IC81	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
262	3-359-436-11	BASE (THRUST RETAINER), FITTING		M101	X-3365-377-2	MOTOR ASSY (CAPSTAN)	
263	3-359-466-01	BELT (FR), SQUARE		M102	X-3363-501-2	MOTOR ASSY (REEL)	
264	3-575-321-00	RETAINER, THRUST, CAPSTAN					

5-4. MECHANISM SECTION-2

(DECK A : TCM-190RA12CL)
(DECK B : TCM-190RB52C)



Ref.No.	Part No.	Description	Remark
301	X-3359-415-1	CHASSIS ASSY, MECHANICAL	
302	3-359-469-01	SPACER	
303	3-359-425-01	SLIDER (REVERSE SLIDER)	
304	3-359-426-01	LEVER (REVERSE LEVER)	
305	3-359-427-01	SLIDER (LEVERSE SLIDER)	
* 306	3-359-415-01	SLIDER (TRIGGER SLIDER) (DECK A)	
306	3-359-415-11	SLIDER (TRIGGER SLIDER) (DECK B)	
307	3-359-448-01	GEAR (TRIGGER)	
308	3-359-454-01	SPRING, TORSION	

Ref.No.	Part No.	Description	Remark
309	3-359-429-01	SLIDER (BRAKE PLATE) (DECK A)	
309	3-359-429-11	SLIDER (BRAKE PLATE) (DECK B)	
310	3-359-420-01	GEAR (CAM GEAR)	
311	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
312	X-3366-569-1	ARM ASSY, FR	
313	3-924-185-11	SPRING (FR ARM), TORSION	
314	3-359-419-11	GEAR (FR GEAR)	
315	3-359-421-01	CLUTCH (REEL DISK)	
316	3-359-418-01	PULLEY (FR PULLEY)	

SECTION 6 ELECTRICAL PARTS LIST

AUDIO (DECK A)

AUDIO (DECK B)

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal oxide-film resistor
F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA.... : μ A...., uPA.... : μ PA....
uPB.... : μ PB...., uPC.... : μ PC....
uPD.... : μ PD....
- CAPACITORS
uF : μ F
- COILS
uH : μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*	A-2007-266-A	AUDIO BOARD, COMPLETE (DECK A) *****				< TRANSISTOR >	
		< CAPACITOR >		Q71	8-729-216-22	TRANSISTOR 2SA1162-G	
						< RESISTOR >	
C11	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	R11	1-216-099-00	METAL CHIP 120K 5%	1/10W
C12	1-136-157-00	FILM 0.022uF	5% 50V	R12	1-216-025-91	METAL GLAZE 100 5%	1/10W
C13	1-124-234-00	ELECT 22uF	20% 16V	R13	1-216-100-00	METAL GLAZE 130K 5%	1/10W
C18	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	R14	1-216-068-00	METAL CHIP 6.2K 5%	1/10W
C21	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	R21	1-216-099-00	METAL CHIP 120K 5%	1/10W
C22	1-136-157-00	FILM 0.022uF	5% 50V	R22	1-216-025-91	METAL GLAZE 100 5%	1/10W
C23	1-124-234-00	ELECT 22uF	20% 16V	R23	1-216-100-00	METAL GLAZE 130K 5%	1/10W
C28	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	R24	1-216-068-00	METAL CHIP 6.2K 5%	1/10W
C31	1-124-234-00	ELECT 22uF	20% 16V	R31	1-216-033-00	METAL CHIP 220 5%	1/10W
C32	1-124-234-00	ELECT 22uF	20% 16V	R32	1-216-033-00	METAL CHIP 220 5%	1/10W
C72	1-124-499-11	ELECT, NONPOLAR 1uF	20% 50V	R71	1-216-082-00	METAL GLAZE 24K 5%	1/10W
		< CONNECTOR >		R72	1-216-081-00	METAL CHIP 22K 5%	1/10W
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD		R73	1-216-089-00	METAL CHIP 47K 5%	1/10W
CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P		R74	1-216-089-00	METAL CHIP 47K 5%	1/10W
		< CONNECTOR >				< VARIABLE RESISTOR >	
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P		RV11	1-241-761-11	RES, ADJ, CARBON 1K (PLAY BACK LEVEL L-CH)	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P		RV21	1-241-761-11	RES, ADJ, CARBON 1K (PLAY BACK LEVEL R-CH)	
		< IC >		RV71	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED NORMAL)	
IC31	8-759-106-02	IC uPC4570G2		RV72	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED HIGH)	
		< JUMPER RESISTOR >		*****			
JW1	1-216-295-00	METAL CHIP 0 5%	1/10W	*	A-2007-133-A	AUDIO BOARD, COMPLETE (DECK B) *****	
JW51	1-216-296-00	METAL CHIP 0 5%	1/8W			< CAPACITOR >	
JW52	1-216-296-00	METAL CHIP 0 5%	1/8W	C11	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
JW53	1-216-296-00	METAL CHIP 0 5%	1/8W	C12	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
JW54	1-216-296-00	METAL CHIP 0 5%	1/8W				

AUDIO (DECK B)

Ref.No.	Part No.	Description	Remark
C13	1-136-153-00	FILM 0.01uF	5% 50V
C14	1-126-177-11	ELECT 100uF	20% 10V
C15	1-124-234-00	ELECT 22uF	20% 16V
C16	1-136-434-11	FILM 120PF	5% 630V
C17	1-164-080-11	CERAMIC 390PF	10% 50V
C18	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C21	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C22	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C23	1-136-153-00	FILM 0.01uF	5% 50V
C24	1-126-177-11	ELECT 100uF	20% 10V
C25	1-124-234-00	ELECT 22uF	20% 16V
C26	1-136-434-11	FILM 120PF	5% 630V
C27	1-164-080-11	CERAMIC 390PF	10% 50V
C28	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C31	1-124-234-00	ELECT 22uF	20% 16V
C32	1-124-234-00	ELECT 22uF	20% 16V
C33	1-124-234-00	ELECT 22uF	20% 16V
C51	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
C52	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
C53	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V
C54	1-136-601-11	FILM 0.01uF	5% 630V
C56	1-164-505-11	CERAMIC CHIP 2.2uF	16V
C57	1-164-346-11	CERAMIC CHIP 1uF	16V
C58	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C72	1-109-889-11	ELECT 1uF	20% 50V
< CONNECTOR >			
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD	
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD	
CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P	
< CONNECTOR >			
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
< IC >			
IC31	8-759-249-21	IC uPC1330AGR	
IC32	8-759-106-02	IC uPC4570G2	
< JUMPER RESISTOR >			
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW2	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW11	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW12	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW13	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW14	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW15	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW16	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW17	1-216-296-00	METAL CHIP 0 5% 1/8W	

Ref.No.	Part No.	Description	Remark
JW18	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW19	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW20	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW21	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW22	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW23	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW24	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW25	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW26	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW27	1-216-296-00	METAL CHIP 0 5% 1/8W	
< COIL >			
L11	1-410-780-11	INDUCTOR 27mH	
L21	1-410-780-11	INDUCTOR 27mH	
< TRANSISTOR >			
Q51	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q52	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q53	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q71	8-729-216-22	TRANSISTOR 2SA1162-G	
< RESISTOR >			
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R12	1-216-033-00	METAL CHIP 220 5% 1/10W	
R13	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R14	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R15	1-216-107-00	METAL CHIP 270K 5% 1/10W	
△R16	1-249-430-11	CARBON 12K 5% 1/4W F	
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R22	1-216-033-00	METAL CHIP 220 5% 1/10W	
R23	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R24	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R25	1-216-107-00	METAL CHIP 270K 5% 1/10W	
△R26	1-249-430-11	CARBON 12K 5% 1/4W F	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
R33	1-216-073-00	METAL CHIP 10K 5% 1/10W	
△R41	1-249-393-11	CARBON 10 5% 1/4W F	
△R42	1-249-393-11	CARBON 10 5% 1/4W F	
R51	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R52	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R53	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R54	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
R55	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
R56	1-216-298-00	METAL CHIP 2.2 5% 1/10W	
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R73	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R74	1-216-089-00	METAL CHIP 47K 5% 1/10W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

AUDIO (DECK B)

LEAF SW (DECK A)

LEAF SW (DECK B)

TC MAIN

Ref.No.	Part No.	Description	Remark
< VARIABLE RESISTOR >			
RV11	1-241-761-11	RES, ADJ, CARBON 1K (PLAY BACK LEVEL L-CH)	
RV12	1-238-551-11	RES, ADJ, CARBON 220K (REC BIAS L-CH)	
RV21	1-241-761-11	RES, ADJ, CARBON 1K (PLAY BACK LEVEL R-CH)	
RV22	1-238-551-11	RES, ADJ, CARBON 220K (REC BIAS R-CH)	
RV71	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED NORMAL)	
RV72	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED HIGH)	
< TRANSFORMER >			
T51	1-423-980-11	TRANSFORMER, BIAS OSCILLATION	

*	1-638-020-11	LEAF SW BOARD (DECK A)	

< CONNECTOR >			
* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
< IC >			
IC81	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
< RESISTOR >			
R84	1-249-417-11	CARBON 1K 5% 1/4W	
R85	1-249-408-11	CARBON 180 5% 1/4W	
< SWITCH >			
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82	1-571-281-21	SWITCH, LEAF (70EQ)	
S86	1-571-281-21	SWITCH, LEAF (HALF)	

*	1-638-020-11	LEAF SW BOARD (DECK B)	

< CONNECTOR >			
* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
< IC >			
IC81	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
< RESISTOR >			
R81	1-249-414-11	CARBON 560 5% 1/4W	
R82	1-247-818-11	CARBON 300 5% 1/4W	
R83	1-247-834-11	CARBON 1.3K 5% 1/4W	
R84	1-249-417-11	CARBON 1K 5% 1/4W	
R85	1-249-408-11	CARBON 180 5% 1/4W	

Ref.No.	Part No.	Description	Remark
< SWITCH >			
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82	1-571-281-21	SWITCH, LEAF (70EQ)	
S83	1-571-281-21	SWITCH, LEAF (METAL)	
S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF) (SIDE A)	
S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF) (SIDE B)	
S86	1-571-281-21	SWITCH, LEAF (HALF)	

*	A-2007-301-A	TC MAIN BOARD, COMPLETE	

< CAPACITOR >			
C104	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C105	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C106	1-124-925-11	ELECT 2.2uF 20% 100V	
C107	1-136-174-00	FILM 0.56uF 5% 50V	
C108	1-136-171-00	FILM 0.33uF 5% 50V	
C109	1-124-925-11	ELECT 2.2uF 20% 100V	
C110	1-124-925-11	ELECT 2.2uF 20% 100V	
C114	1-124-907-11	ELECT 10uF 20% 50V	
C115	1-124-443-00	ELECT 100uF 20% 10V	
C116	1-162-282-31	CERAMIC 100PF 10% 50V	
C117	1-124-925-11	ELECT 2.2uF 20% 100V	
C119	1-124-902-00	ELECT 0.47uF 20% 50V	
C120	1-124-927-11	ELECT 4.7uF 20% 100V	
C130	1-162-282-31	CERAMIC 100PF 10% 50V	
C131	1-162-282-31	CERAMIC 100PF 10% 50V	
C132	1-124-903-11	ELECT 1uF 20% 50V	
C133	1-162-286-21	CERAMIC 220PF 10% 50V	
C204	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C205	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C206	1-124-925-11	ELECT 2.2uF 20% 100V	
C207	1-136-174-00	FILM 0.56uF 5% 50V	
C208	1-136-171-00	FILM 0.33uF 5% 50V	
C209	1-124-925-11	ELECT 2.2uF 20% 100V	
C210	1-124-925-11	ELECT 2.2uF 20% 100V	
C214	1-124-907-11	ELECT 10uF 20% 50V	
C215	1-124-443-00	ELECT 100uF 20% 10V	
C216	1-162-282-31	CERAMIC 100PF 10% 50V	
C217	1-124-925-11	ELECT 2.2uF 20% 100V	
C219	1-124-902-00	ELECT 0.47uF 20% 50V	
C220	1-124-927-11	ELECT 4.7uF 20% 100V	
C230	1-162-282-31	CERAMIC 100PF 10% 50V	
C231	1-162-282-31	CERAMIC 100PF 10% 50V	
C232	1-124-903-11	ELECT 1uF 20% 50V	
C233	1-162-286-21	CERAMIC 220PF 10% 50V	
C502	1-128-489-11	ELECT 3300uF 20% 16V	

TC MAIN

Ref. No.	Part No.	Description	Remark
C504	1-128-489-11	ELECT	3300uF 20% 16V
C518	1-126-927-11	ELECT	2200uF 20% 10V
C519	1-126-927-11	ELECT	2200uF 20% 10V
C529	1-136-157-00	FILM	0.022uF 5% 50V
C530	1-136-157-00	FILM	0.022uF 5% 50V
C533	1-136-157-00	FILM	0.022uF 5% 50V
C534	1-136-157-00	FILM	0.022uF 5% 50V
C535	1-124-360-00	ELECT	1000uF 20% 16V
C536	1-124-360-00	ELECT	1000uF 20% 16V
C537	1-124-472-11	ELECT	470uF 20% 10V
C538	1-124-472-11	ELECT	470uF 20% 10V
C540	1-124-473-11	ELECT	1000uF 20% 10V
C550	1-162-282-31	CERAMIC	100PF 10% 50V
C601	1-124-443-00	ELECT	100uF 20% 10V
C602	1-164-159-11	CERAMIC	0.1uF 50V
C604	1-164-159-11	CERAMIC	0.1uF 50V
C605	1-124-902-00	ELECT	0.47uF 20% 50V
C606	1-124-480-11	ELECT	470uF 20% 25V
C607	1-124-480-11	ELECT	470uF 20% 25V
C608	1-124-480-11	ELECT	470uF 20% 25V
C609	1-124-902-00	ELECT	0.47uF 20% 50V
C610	1-124-472-11	ELECT	470uF 20% 10V
C611	1-162-290-31	CERAMIC	470PF 10% 50V
C612	1-124-472-11	ELECT	470uF 20% 10V
C613	1-162-290-31	CERAMIC	470PF 10% 50V
C614	1-164-159-11	CERAMIC	0.1uF 50V
C615	1-164-159-11	CERAMIC	0.1uF 50V
C616	1-124-910-11	ELECT	47uF 20% 50V
C617	1-164-159-11	CERAMIC	0.1uF 50V
C620	1-124-907-11	ELECT	10uF 20% 50V
C621	1-124-907-11	ELECT	10uF 20% 50V
C622	1-124-477-11	ELECT	47uF 20% 25V
C623	1-124-477-11	ELECT	47uF 20% 25V
C630	1-124-927-11	ELECT	4.7uF 20% 100V
C631	1-124-903-11	ELECT	1uF 20% 50V
C636	1-124-916-11	ELECT	22uF 20% 63V
C641	1-124-927-11	ELECT	4.7uF 20% 100V
C642	1-124-902-00	ELECT	0.47uF 20% 50V
C645	1-124-907-11	ELECT	10uF 20% 50V
C646	1-124-925-11	ELECT	2.2uF 20% 100V
C649	1-124-907-11	ELECT	10uF 20% 50V
C650	1-124-916-11	ELECT	22uF 20% 63V
C651	1-124-443-00	ELECT	100uF 20% 10V
C800	1-162-282-31	CERAMIC	100PF 10% 50V
C6035	1-162-294-31	CERAMIC	0.001uF 10% 50V

< CONNECTOR >

CN601	1-695-330-31	PIN, CONNECTOR (PC BOARD) 7P
* CN602	1-691-916-11	CONNECTOR, BOARD TO BOARD

Ref. No.	Part No.	Description	Remark
CN603	1-695-330-31	PIN, CONNECTOR (PC BOARD) 7P	
* CN604	1-691-916-11	CONNECTOR, BOARD TO BOARD	
* CN605	1-691-916-11	CONNECTOR, BOARD TO BOARD	
CN608	1-770-166-11	CONNECTOR, FFC/FPC 17P	
CN609	1-770-158-21	SOCKET, CONNECTOR 7P (SYSTEM CONTROL)	
* CN610	1-565-561-11	PIN, CONNECTOR 3P (AU BUS)	

< DIODE >

D508	8-719-200-02	DIODE	10E2
D509	8-719-200-02	DIODE	10E2
D510	8-719-200-02	DIODE	10E2
D511	8-719-200-02	DIODE	10E2
D512	8-719-200-02	DIODE	10E2
D513	8-719-200-02	DIODE	10E2
D519	8-719-200-02	DIODE	10E2
D522	8-719-200-02	DIODE	10E2
D523	8-719-987-63	DIODE	1N4148M
D524	8-719-987-63	DIODE	1N4148M
D525	8-719-200-02	DIODE	10E2
D526	8-719-200-02	DIODE	10E2
D601	8-719-987-63	DIODE	1N4148M
D602	8-719-987-63	DIODE	1N4148M
D603	8-719-987-63	DIODE	1N4148M
D604	8-719-987-63	DIODE	1N4148M
D605	8-719-200-02	DIODE	10E2
D606	8-719-200-02	DIODE	10E2
D607	8-719-987-63	DIODE	1N4148M
D608	8-719-987-63	DIODE	1N4148M
D609	8-719-987-63	DIODE	1N4148M
D610	8-719-200-02	DIODE	10E2
D611	8-719-987-63	DIODE	1N4148M
D620	8-719-010-05	DIODE	UZ-2.0BSB

< IC >

IC101	8-752-058-57	IC	CXA1599Q
IC102	8-759-939-73	IC	BA3308
IC103	8-752-059-55	IC	CXA1331S
IC104	8-759-337-73	IC	M38123M4-118FP
IC502	8-759-231-53	IC	TA7805S
IC503	8-759-604-86	IC	M5F7807
IC504	8-759-604-90	IC	M5F7907L
IC505	8-759-604-86	IC	M5F7807
IC506	8-759-604-90	IC	M5F7907L
IC602	8-759-510-54	IC	PST572D
IC603	8-759-266-35	IC	TA8242AK
IC6004	8-759-000-48	IC	MC14052BCP

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
< COIL >							
L101	1-410-470-11	INDUCTOR	10uH	R120	1-247-807-31	CARBON	100 5% 1/4W
L102	1-410-470-11	INDUCTOR	10uH	R121	1-247-807-31	CARBON	100 5% 1/4W
L601	1-410-482-31	INDUCTOR	100uH	R122	1-249-422-11	CARBON	2.7K 5% 1/4W
L6002	1-410-470-11	INDUCTOR	10uH	R206	1-247-832-11	CARBON	1.1K 5% 1/4W
< JACK >				R207	1-247-864-11	CARBON	24K 5% 1/4W
PJ101	1-695-188-31	JACK, PIN 4P (TAPE-1)		R208	1-249-414-11	CARBON	560 5% 1/4W
< TRANSISTOR >				R209	1-249-429-11	CARBON	10K 5% 1/4W
Q101	8-729-107-85	TRANSISTOR	2SC3623A-K	R210	1-249-427-11	CARBON	6.8K 5% 1/4W
Q122	8-729-900-89	TRANSISTOR	DTC144ES	R211	1-249-427-11	CARBON	6.8K 5% 1/4W
Q201	8-729-107-85	TRANSISTOR	2SC3623A-K	R212	1-247-832-11	CARBON	1.1K 5% 1/4W
Q222	8-729-900-89	TRANSISTOR	DTC144ES	R213	1-249-429-11	CARBON	10K 5% 1/4W
Q603	8-729-801-93	TRANSISTOR	2SD1387	R214	1-249-421-11	CARBON	2.2K 5% 1/4W
Q604	8-729-801-93	TRANSISTOR	2SD1387	R215	1-247-887-00	CARBON	220K 5% 1/4W
Q605	8-729-900-80	TRANSISTOR	DTC114ES	R216	1-249-437-11	CARBON	47K 5% 1/4W
Q607	8-729-900-89	TRANSISTOR	DTC144ES	R217	1-249-415-11	CARBON	680 5% 1/4W
Q608	8-729-900-89	TRANSISTOR	DTC144ES	R218	1-249-439-11	CARBON	68K 5% 1/4W
Q609	8-729-900-89	TRANSISTOR	DTC144ES	R219	1-249-415-11	CARBON	680 5% 1/4W
Q611	8-729-107-85	TRANSISTOR	2SC3623A-K	R220	1-247-807-31	CARBON	100 5% 1/4W
Q612	8-729-119-76	TRANSISTOR	2SA1175-HFE	R221	1-247-807-31	CARBON	100 5% 1/4W
Q613	8-729-900-65	TRANSISTOR	DTA144ES	R222	1-249-422-11	CARBON	2.7K 5% 1/4W
Q614	8-729-900-89	TRANSISTOR	DTC144ES	R504	1-247-807-31	CARBON	100 5% 1/4W
Q620	8-729-900-89	TRANSISTOR	DTC144ES	R505	1-249-429-11	CARBON	10K 5% 1/4W
Q621	8-729-900-65	TRANSISTOR	DTA144ES	R506	1-249-393-11	CARBON	10 5% 1/4W
Q627	8-729-900-89	TRANSISTOR	DTC144ES	R601	1-247-807-31	CARBON	100 5% 1/4W
Q630	8-729-900-61	TRANSISTOR	DTA114ES	R602	1-247-807-31	CARBON	100 5% 1/4W
Q802	8-729-900-80	TRANSISTOR	DTC114ES	R606	1-249-435-11	CARBON	33K 5% 1/4W
Q803	8-729-900-80	TRANSISTOR	DTC114ES	R607	1-247-807-31	CARBON	100 5% 1/4W
Q804	8-729-900-80	TRANSISTOR	DTC114ES	R615	1-247-807-31	CARBON	100 5% 1/4W
Q805	8-729-900-80	TRANSISTOR	DTC114ES	R616	1-247-863-91	CARBON	22K 5% 1/4W
< RESISTOR >				R620	1-249-441-11	CARBON	100K 5% 1/4W
R106	1-247-832-11	CARBON	1.1K 5% 1/4W	R621	1-249-417-11	CARBON	1K 5% 1/4W
R107	1-247-864-11	CARBON	24K 5% 1/4W	R622	1-249-421-11	CARBON	2.2K 5% 1/4W
R108	1-249-414-11	CARBON	560 5% 1/4W	R623	1-249-421-11	CARBON	2.2K 5% 1/4W
R109	1-249-429-11	CARBON	10K 5% 1/4W	R624	1-249-434-11	CARBON	27K 5% 1/4W
R110	1-249-427-11	CARBON	6.8K 5% 1/4W	R625	1-249-421-11	CARBON	2.2K 5% 1/4W
R111	1-249-427-11	CARBON	6.8K 5% 1/4W	R626	1-249-421-11	CARBON	2.2K 5% 1/4W
R112	1-247-832-11	CARBON	1.1K 5% 1/4W	R627	1-249-421-11	CARBON	2.2K 5% 1/4W
R113	1-249-429-11	CARBON	10K 5% 1/4W	R628	1-249-434-11	CARBON	27K 5% 1/4W
R114	1-249-421-11	CARBON	2.2K 5% 1/4W	R629	1-249-421-11	CARBON	2.2K 5% 1/4W
R115	1-247-887-00	CARBON	220K 5% 1/4W	R630	1-249-429-11	CARBON	10K 5% 1/4W
R116	1-249-437-11	CARBON	47K 5% 1/4W	R631	1-249-421-11	CARBON	2.2K 5% 1/4W
R117	1-249-415-11	CARBON	680 5% 1/4W	R632	1-249-429-11	CARBON	10K 5% 1/4W
R118	1-249-439-11	CARBON	68K 5% 1/4W	R633	1-247-807-31	CARBON	100 5% 1/4W
R119	1-249-415-11	CARBON	680 5% 1/4W	R634	1-247-807-31	CARBON	100 5% 1/4W
				R637	1-249-414-11	CARBON	560 5% 1/4W
				R640	1-249-428-11	CARBON	8.2K 5% 1/4W
				R641	1-249-409-11	CARBON	220 5% 1/4W
				R642	1-249-421-11	CARBON	2.2K 5% 1/4W
				R643	1-247-807-31	CARBON	100 5% 1/4W

TC MAIN

TC PANEL

Ref.No.	Part No.	Description	Remark		
R644	1-247-807-31	CARBON	100	5%	1/4W
R648	1-249-437-11	CARBON	47K	5%	1/4W
R649	1-249-437-11	CARBON	47K	5%	1/4W
R650	1-249-437-11	CARBON	47K	5%	1/4W
R656	1-249-393-11	CARBON	10	5%	1/4W
R660	1-249-417-11	CARBON	1K	5%	1/4W
R661	1-249-434-11	CARBON	27K	5%	1/4W
R670	1-247-863-91	CARBON	22K	5%	1/4W
R673	1-249-429-11	CARBON	10K	5%	1/4W
R674	1-247-860-11	CARBON	16K	5%	1/4W
R675	1-249-429-11	CARBON	10K	5%	1/4W
R676	1-249-434-11	CARBON	27K	5%	1/4W
R677	1-247-807-31	CARBON	100	5%	1/4W
R678	1-247-807-31	CARBON	100	5%	1/4W
R679	1-247-807-31	CARBON	100	5%	1/4W
R680	1-249-441-11	CARBON	100K	5%	1/4W
R681	1-249-429-11	CARBON	10K	5%	1/4W
R682	1-249-429-11	CARBON	10K	5%	1/4W
R683	1-249-429-11	CARBON	10K	5%	1/4W
R684	1-249-413-11	CARBON	470	5%	1/4W
R685	1-249-429-11	CARBON	10K	5%	1/4W
R686	1-249-429-11	CARBON	10K	5%	1/4W
R687	1-249-417-11	CARBON	1K	5%	1/4W
R689	1-247-872-11	CARBON	51K	5%	1/4W
R690	1-249-429-11	CARBON	10K	5%	1/4W
R691	1-249-425-11	CARBON	4.7K	5%	1/4W
R693	1-247-863-91	CARBON	22K	5%	1/4W
R694	1-247-863-91	CARBON	22K	5%	1/4W
R695	1-249-421-11	CARBON	2.2K	5%	1/4W
R696	1-249-421-11	CARBON	2.2K	5%	1/4W
R700	1-247-903-00	CARBON	1M	5%	1/4W
R701	1-249-429-11	CARBON	10K	5%	1/4W
R702	1-249-437-11	CARBON	47K	5%	1/4W
R801	1-249-417-11	CARBON	1K	5%	1/4W
R802	1-247-807-31	CARBON	100	5%	1/4W
R803	1-247-807-31	CARBON	100	5%	1/4W
R804	1-247-807-31	CARBON	100	5%	1/4W
R805	1-247-807-31	CARBON	100	5%	1/4W
R807	1-247-863-91	CARBON	22K	5%	1/4W
R808	1-249-429-11	CARBON	10K	5%	1/4W
R809	1-249-429-11	CARBON	10K	5%	1/4W
R810	1-249-429-11	CARBON	10K	5%	1/4W
R813	1-249-411-11	CARBON	330	5%	1/4W
R814	1-249-411-11	CARBON	330	5%	1/4W
R815	1-249-411-11	CARBON	330	5%	1/4W
R816	1-249-411-11	CARBON	330	5%	1/4W
R817	1-249-411-11	CARBON	330	5%	1/4W
R818	1-249-435-11	CARBON	33K	5%	1/4W
R819	1-249-393-11	CARBON	10	5%	1/4W

Ref.No.	Part No.	Description	Remark		
R820	1-249-417-11	CARBON	1K	5%	1/4W
R821	1-249-417-11	CARBON	1K	5%	1/4W
R822	1-249-417-11	CARBON	1K	5%	1/4W
R823	1-249-425-11	CARBON	4.7K	5%	1/4W
R6070	1-249-421-11	CARBON	2.2K	5%	1/4W
R6071	1-249-421-11	CARBON	2.2K	5%	1/4W
< VARIABLE RESISTOR >					
RV101	1-238-600-11	RES, ADJ, CARBON 10K			
RV201	1-238-600-11	RES, ADJ, CARBON 10K			
< VIBRATOR >					
X601	1-577-358-21	VIBRATOR, CERAMIC			

*	A-2007-302-A	TC PANEL BOARD, COMPLETE			

< CONNECTOR >					
CN900	1-770-169-11	CONNECTOR, FFC/FPC 17P			
< DIODE >					
D900	8-719-046-42	LED SEL5421E-TH8F (DECK A▷)			
D901	8-719-046-42	LED SEL5421E-TH8F (<DECK A)			
D902	8-719-046-42	LED SEL5421E-TH8F (DECK B▷)			
D903	8-719-046-42	LED SEL5421E-TH8F (<DECK B)			
D906	8-719-046-44	LED SEL5221S-TP15 (CD SYNCHRO)			
D907	8-719-046-44	LED SEL5221S-TP15 (HIGHT)			
D908	8-719-046-44	LED SEL5221S-TP15 (NORMAL)			
D909	8-719-046-36	LED SEL5921A-TH15 (■)			
D910	8-719-046-44	LED SEL5221S-TP15 (REC)			
< RESISTOR >					
R900	1-249-418-11	CARBON	1.2K	5%	1/4W
R901	1-249-420-11	CARBON	1.8K	5%	1/4W
R902	1-249-422-11	CARBON	2.7K	5%	1/4W
R903	1-249-424-11	CARBON	3.9K	5%	1/4W
R904	1-249-427-11	CARBON	6.8K	5%	1/4W
R905	1-249-418-11	CARBON	1.2K	5%	1/4W
R906	1-249-420-11	CARBON	1.8K	5%	1/4W
R907	1-249-422-11	CARBON	2.7K	5%	1/4W
R908	1-249-424-11	CARBON	3.9K	5%	1/4W
R909	1-249-427-11	CARBON	6.8K	5%	1/4W
R910	1-249-431-11	CARBON	15K	5%	1/4W
R911	1-249-437-11	CARBON	47K	5%	1/4W
R914	1-249-426-11	CARBON	5.6K	5%	1/4W
R915	1-249-434-11	CARBON	27K	5%	1/4W
R916	1-249-425-11	CARBON	4.7K	5%	1/4W

Ref.No.	Part No.	Description	Remark
< SWITCH >			
S900	1-762-205-11	SWITCH, SLIDE (DIRECTION MODE)	
S901	1-762-205-11	SWITCH, SLIDE (DOLBY NR)	
S902	1-554-303-21	SWITCH, TACTILE (□)	
S903	1-554-303-21	SWITCH, TACTILE (▷)	
S904	1-554-303-21	SWITCH, TACTILE (◁)	
S905	1-554-303-21	SWITCH, TACTILE (⏸ PAUSE)	
S906	1-554-303-21	SWITCH, TACTILE (AMS/◀◀)	
S907	1-554-303-21	SWITCH, TACTILE (AMS/▶▶)	
S908	1-554-303-21	SWITCH, TACTILE (□)	
S909	1-554-303-21	SWITCH, TACTILE (▷)	
S910	1-554-303-21	SWITCH, TACTILE (◁)	
S911	1-554-303-21	SWITCH, TACTILE (AMS/◀◀)	
S912	1-554-303-21	SWITCH, TACTILE (AMS/▶▶)	
S913	1-554-303-21	SWITCH, TACTILE (● REC)	
S915	1-554-303-21	SWITCH, TACTILE (DUBBING MODE)	
S916	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	
S917	1-554-303-21	SWITCH, TACTILE (● REC MUTE)	

MISCELLANEOUS			

60	1-769-390-11	WIRE (FLAT TYPE) (17 CORE)	
70	1-765-384-11	WIRE (FLAT TYPE) (7 CORE)	
271	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
HP1	A-2003-757-A	BASE ASSY, HEAD (PB) (DECK A)	
HRPE1	A-2003-930-A	BASE ASSY, HEAD (PB/REC/ERASE) (DECK B)	
IC81	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
M101	X-3365-377-2	MOTOR ASSY (CAPSTAN)	
M102	X-3363-501-2	MOTOR ASSY (REEL)	

HARDWARE LIST			

#1	7-685-646-79	SCREW +BVTP 3×8 TYPE2 N-S	
#2	7-685-871-01	SCREW +BVTT 3×6 (S)	
#3	7-621-770-67	SCREW +PTT 2.6×6 (S)	
#4	7-685-862-04	SCREW +BVTT 2.6×6 (S)	
#5	7-621-775-00	SCREW +B 2.6×3	
#6	7-627-556-08	SCREW +P 2.6×2.8	

